

## CLAIMS

What is claimed is:

1. A method of controlling a drum washing machine, comprising:  
spin-drying laundry by rotating a rotary tub after a washing and/or rinsing operation;  
wherein the spin-drying of the laundry comprises spraying and feeding water into the rotary tub during a time period wherein the rotary tub is inertially rotated.
2. The drum washing machine control method according to claim 1, wherein the time period of the spraying and feeding of the water is shorter than a time required for termination of the inertial rotation of the rotary tub.
3. The drum washing machine control method according to claim 1, further comprising pumping water in the rotary tub to outside of the rotary tub until the inertial rotation of the rotary tub terminates.
4. The drum washing machine control method according to claim 1, wherein the spin-drying of the laundry is an intermittent spin-drying operation in which the laundry is intermittently spin-dried after the washing and/or rinsing operation.
5. The drum washing machine control method according to claim 1, wherein the spraying and feeding of the water is also executed during a time period wherein a rotation speed of the rotary tub rises.
6. The drum washing machine control method according to claim 5, wherein the spraying and feeding of the water is executed for a first preset time during the time period wherein the rotary tub is inertially rotated, and for a second preset time during the time period wherein a rotation speed of the rotary tub rises.
7. The drum washing machine control method according to claim 6, wherein the second preset time begins in response to the rotation speed of the rotary tub reaching a preset level.

8. The drum washing machine control method according to claim 1, wherein spraying and feeding of the water is executed for a preset time.

9. The drum washing machine control method according to claim 1, further comprising spin-drying a final time without spraying and feeding the water, wherein the final spin-drying is performed after the washing and/or rinsing operation and a draining operation have been performed a predetermined number of times.

10. A drum washing machine, comprising:  
a rotary tub;  
a spray feed unit to spray and feed water into the rotary tub; and  
a control unit to control the spray feed unit;  
wherein the control unit controls the spray feed unit to spray and feed water into the rotary tub during a time period wherein the rotary tub is inertially rotated at a time of spin-drying.

11. The drum washing machine according to claim 10, wherein the control unit controls the spray feed unit at a time of intermittent spin-drying in which laundry is intermittently spin-dried after a washing and/or a rinsing operation.

12. The drum washing machine according to claim 10, wherein the control unit also controls the spray feed unit to spray and feed water during a time period wherein a rotation speed of the rotary tub rises.

13. The drum washing machine according to claim 12, wherein the control unit controls the spray feed unit to spray and feed water for a first preset time during the time period wherein the rotary tub is inertially rotated, and for a second preset time during the time period wherein a rotation speed of the rotary tub rises.

14. The drum washing machine according to claim 13, wherein the second preset time begins in response to the rotation speed of the rotary tub reaching a preset level.

15. The drum washing machine according to claim 10, wherein the spray feed unit comprises:

- a main water feed pipe to feed water to the drum washing machine;
- an auxiliary water feed pipe having a first end connected to the main water feed pipe, and a second end disposed at an inlet of the rotary tub;
- an auxiliary water feed valve mounted at the auxiliary water feed pipe; and
- a spray nozzle mounted at the second end of the auxiliary water feed pipe.

16. The drum washing machine according to claim 15, wherein the control unit controls the auxiliary water feed valve to open and close to respectively begin and end the spraying and feeding of the water into the rotary tub.

17. The drum washing machine according to claim 10, wherein the control unit controls the spray feed unit so that a time required for the spraying and feeding of the water is shorter than a time required for termination of the inertial rotation of the rotary tub.

18. The drum washing machine according to claim 10, further comprising a pump to drain water in the rotary tub to outside of the rotary tub.

19. The drum washing machine according to claim 18, wherein the control unit controls the pump to drain the water in the rotary tub until the inertial rotation of the rotary tub terminates.

20. A drum washing machine, comprising:

- a rotary tub; and
- a control unit to control adding water to the rotary tub during a time period wherein the rotary tub is inertially rotated.

21. A drum washing machine, comprising:

- a rotary tub;
- wherein the drum washing machine adds water to the rotary tub during a time period after stopping driving the rotary tub in a spin-drying movement, but before the spin-drying movement ends.

22. A method of controlling a drum washing machine, comprising adding water to a rotary tub as the rotary tub is inertially rotated.